IN ● CLAIMS:

Amend claim 7 as follows:

After the word "to" delete "one of claims 3-6", and add
-- claims 3, 4, 5, or 6 --.

Add the following new claims 36 through 65:

36. A method for operating a computer network that provides a
very large number of simultaneous users access to large numbers
of applications having text and graphic information, the network
including one or more host computers, a plurality of distribution
computers connected in groups of one of more to each of the host
computers, and a plurality of reception system computers each
having a display screen, the reception system being connected in
groups of one or more to each of the distribution computers, the
method comprising the steps of:

a. organizing the application information into objects;

b. distributing selected objects in accordance with a
predetermined plan to the host computers, the distribution
computers and the reception system computers; and

c. supplying objects to a reception system computer
requesting an application so that the requesting reception system
computer an selectively combine the objects which make up a
requested application by collecting objects as required from the
host computers, the distribution computers, and the requesting
reception system computer so that the requested application may
be displayed at the reception system computer display screen
based on the objects collected.

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37. The method of claim 36 wherein the organizing of the applications into objects includes providing the objects with display data and program instructions necessary to execute the requested applications.

38. The method of claim 37 wherein the combining of the objects at the requesting reception system computer includes the utilization of application software operating at the requesting reception system computer which is capable of interpreting the program instructins included in the objects.

39. The method of claim 38 wherein the organization of the applications into objects includes structuring the objects to include a first section having information for processing the object and a second section including one or more subunits of information including the display data and program instructions for executing the object.

40. The method of claim 39 wherein in combining objects for displaying the requested applications, the reception system application software determines if the requested application can be constituted from ojects stored at the requesting reception system and to the extent it is determined that objects not stored at the requesting reception system are required, requesting the required objects from the network.

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1. The method of claim 40 wherein the organizing of the applications into objects includes providing the program instructions necessary to execute the requested application in a high-level language having verbs adapted to be interpreted by the application software maintained a the requesting reception system computer.

42. The method of claim 41 wherein the supplying of objects to the application requesting reception system includes the supply of information other than objects and wherein such other information other that objects is formulated as messages.

43. The method of claim 42 wherein the supplying of messages includes structuring the messages to have a first section includinginformation for processing of the message, and at least a second section including information representing the message.

44. The method of claim 43 wherein distributing the objects within the network includes placing objects depending upon the likelihood that its associated application will be requested so that objects most likely to be required for a requested application will be placed at the requesting reception system computer and the objects least likely to be required for the requesting application will be placed at the host computers.

45. The method of claim 44 wherein distributing the objects within the network includes placing objects depending in part

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upo preferences of the user of the requesting reception system computers.

46. The method of claim 45 wherein distributing objects within the network depends in part upon user preference determined by a history of user application requests.

47. The method of claim 39 wherein organizing the application information into objects includes formulating the objects so that they can be used in one or more applications.

48. The method of claim 47 wherein formulating the objects includes formulating the object subunits as elements that maybe used in one or more objects.

49. The method of claim 2 wherein the organizing of applications into objects includes collecting the objects in sets which include the information necessary to present a display to the user at the requesting reception system monitor, and wherein one or more screens are used to make up an application.

50. The method of claim 2 wherein supplying objects to the requesting reception system computer includes downloading objects from the network to the requesting reception system when it logs onto the network so as to maintain the store of objects at the requesting reception system computer current.

. A method of searching for applications, the applications being made up of objects containing text and graphic data and program instructions for presenting the applications, the applications being stored on a computer network, the network including a plurality of distribution computers connected in groups of one of more to each of the host computers, and a plurality of reception system computers each having a display screen at which the applications may be presented, the reception system computers being connected in groups of one or more to each of the distribution computers, the method comprising:

    a. preparing a plurality of tables each having various applications referenced to respective keywords so that each table represents a predetermined subset of the applications stored on the network;

    b. providing each table with a unique coding;

    c. generating a code identifier in response to a query for an application entered at the reception system;

    d. comparing the code identifier generated with the table coding to select a table suited to the query;

    e. transmitting the table to the reception system at which the query was entered; and

    f. processing the table identified applications at the reception system that made the query.

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52. The method of claim 51 wherein preparing the tables includes representing the applications thereon by referring to the objects that make up the respective applications, and wherein the coding of the tables includes supplying one or more letters in combination to the table to uniquely identify each table.

53. The method of claim 52 wherein the generating of the code identifiers includes receiving the query for applications in one of a plurality of different procedures and translating each of the different procedures into a single common procedure for generating the code identifier, the code identifier including one or more letters in combination to uniquely identify an application table.

54. The method of claim 53 wherein the generating of the code identifiers includes receiving a query from the user for an application with a procedure selected for the group of procedures consisting of selection by character string, alphabetical listing, physical analogy and menu listing.

55. The method of claim 53 wherein the processing of table identified applications includes collecting at the reception system the objects which make up the application associated with the identified table, and executing the objects so as to present the corresponding text and graphic data for review.

56. Software contained on machine readable media for use in a personal computer to configure the personal computer as a reception system computers for displaying applications at the personal computer monitor, the applications being made up of objects including text and graphic data and program instructions, the reception system being connected in a computer network, the network including one or more host computers, a plurality of distribution computers connected in groups of one or more to each of the host computers, and a plurality of reception system computers, the reception system computers being connected in groups of one or more to each of the distribution computers, the software comprising:

a. first plurality of program instructions for establishing means for generating requests for applications;

b. second plurality of program instructions for establishing means for managing the objects associated with the requested applications;

c. third plurality of program instructions for establishing means for executing the program instructions included within the objects;

d. fourth plurality of program instructions for establishing means for storing objects at the reception system computer;

e. fifth plurality of program instructions for establishing means for communicating with the network for the obtaining of objects;

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f. sixth plurality of program instructions for establishing means for causing the interpreted object data to be displayed at the reception system computer monitor;

wherein, the first, second, third, fourth, fifth and sixth plurality of program instructions are related such that when an requested application is to be executed at the reception system computer, the means for managing the objects determines what objects are required for execution of the application, determines which of the required objects are available at the reception system computer, and secures from the network those required objects not available at the reception system computer so that the means for interpreting the objects can supply the text and graphic data that make up the application to the means for causing the application to be displayed.

57. The software of claim 56 wherein the first plurality of program instructions for establishing means for requesting applications includes means for transforming physical requests for applications entered at the reception system computer input to logical events which are supplied to the means for managing objects so that required objects for the application can be identified and organized.

58. The software of claim 57 wherein the second group of program instructions for establishing the means for managing the objects includes instructions for creating a page processing

table to control collection of objects to be executed for presenting the requested application.

59. The software of claim 58 wherein the first group of program instructions for managing the objects include instructions for assuring that the most current version of the objects requested for the application are provided.

60. The software of claim 59 further including an seventh plurality of program instructions for establishing means for collecting data regarding the frequency of use of various objects in providing the applications required for the applications requested by the reception system computer.

61. The software of claim 60 further including an eighth plurality of program instructions for establishing means for providing advertisement objects to the reception system for display.

62. The software of claim 56 where the fifth group of program instructions for providing communication with the network includes instructions for communicating both objects and messages.

63. The software of claim 56 wherein the third group of instructions for interpreting the objects includes instructions for executing object programs prior to execution of the objects
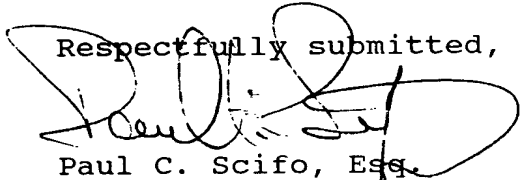
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containing display data in order to effect the collection of objects for display, and further, includes instructions for executing objects following the presentation of display data to undertake action in response to screen display data.

64. The software of claim 56 including program instructions which enable the software to act in cooperation with the operating system running at the reception system computer.

65. The software of claim 56 wherein the second group of instructions for establishing means for managing the objects includes instructions for managing the objects by parsing the objects into its segments according to coding contained within the objects.
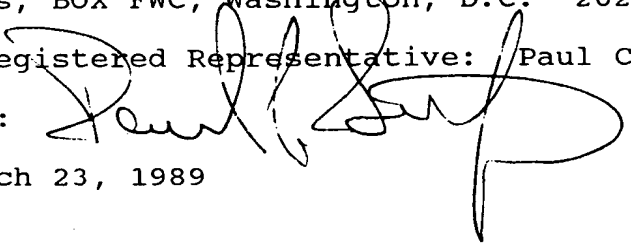
Dated: March 23, 1989,

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail MB01,547715 in an envelope addressed to: Commissioner of Patents and Trademarks, BOX FWC, Washington, D.C. 20231, on March 23, 1989.

Name of Registered Representative: /Paul C. Scifo, Esq.

Signature:

Date: March 23, 1989

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